



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO.       |
|--|-------------|----------------------|---------------------------|------------------------|
| 10/669,523   | 09/23/2003  | Craig Weissman       | 021735-000400US           | 5140                   |
| 20350 7590 01/09/2008<br>TOWNSEND AND TOWNSEND AND CREW, LLP<br>TWO EMBARCADERO CENTER<br>EIGHTH FLOOR<br>SAN FRANCISCO, CA 94111-3834 |             |                      | EXAMINER<br>PHAM, KHANH B |                        |
|  |             |                      | ART UNIT<br>2166          | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>01/09/2008   | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/669,523

Applicant(s)

WEISSMAN ET AL.

Examiner

Khanh B. Pham

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 12, 2007 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 1-25 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (US 2003/0088579 A1) and in view of Guthrie et al. (US 6,587,854 B1), hereinafter "**Brown**" and "**Guthrie**".

**As per claim 1**, Brown teaches a method of optimizing a query in a database comprising:

- "generating statistics for a subset of rows of the data table" at page 4, [0043];
- "receiving a SQL query" at page 3, [0033];
- "optimizing the SQL query based on the statistic" at page 3, [0033]-[0034].

The difference between Brown teaching and the invention of claim 1 is that Brown uses statistic of a subset of rows in the database table instead of "tenant-level statistic" as claimed. Applicants' specification defines "tenant-level statistic" is "number of rows accessible per tenant" (page 12 lines 15-17), which is a subset of all rows in the database. Further, multi-tenant database is well known in the art, in which each tenant is allowed to access a subset of rows in a data table, as exemplary by Guthrie. Guthrie teach a multi-tenant database having one or more data tables, each table having one or more logical columns defining data categories and one or more logical rows associated with one or more tenants, wherein a plurality of tenants have data stored in the data tables" at Col. 4 line 66 to Col. 5 line 15. Each of Guthrie's "enterprise portioned data" is similar to Brown's sample of rows, both comprise a subset of all rows in the database

table. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was make to combine Brown and Guthrie's teachings to optimize query based on enterprise-level statistic (i.e., "tenant level statistic") in a multi-tenant database, in order to provide more accurate method and reduce the processing time since only a subset of data which associated with a particular tenant are processed instead of a whole table.

**As per claim 2**, Brown and Guthrie teach the method of claim 1 discussed above. Guthrie teaches: "wherein each tenant includes one or more associated users" at Col. 5 lines 64-67. Brown also teaches:

- "generating user-level statistics for each user of each tenant for each of the data tables" at page 4, [0043]; and
- "optimizing the SQL query based on the user-level statistic" at page 3, [0033].

**As per claim 3**, Brown and Guthrie teach the method of claim 2 discussed above. Brown also teaches: "wherein the user-level statistics are stored to a user-metadata table" at page 4, [0045].

**As per claim 4**, Brown and Guthrie teach the method of claim 2 discussed above. Brown also teaches: "wherein generating user-level statistics includes determining a total number of distinct rows for each of said plurality of users" at page 4, [0047], [0051].

**As per claim 5**, Brown and Guthrie teach the method of claim 4 discussed above. Guthrie also teaches: “wherein the total number is an approximate number based on one or more of a) a number of rows viewable by the user and user below the user in a role hierarchy, b) a number of rows that are shared by a group to which the user belongs and c) a number of rows that are manually shared to the user by another user or group of users” at Col. 5 lines 1-6.

**As per claim 6**, Brown and Guthrie teach the method of claim 2 discussed above. Brown also teaches: “wherein generating user-level statistics for a user is performed according to one of a) on a schedule basis, b) after a predetermined number of queries by the user, and c) each time an unconstrained query is run by the user” at page 4, [0049].

**As per claim 7**, Brown and Guthrie teach the method of claim 1 discussed above. Brown also teaches; “wherein generating tenant-level statistic is performed on a periodic basis” at page 5, [0058].

**As per claim 8**, Brown and Guthrie teach the method of claim 1 discussed above. Guthrie also teaches: “wherein generating includes determining a total number of distinct rows accessible for each of said plurality of tenant” at Col. 5 lines 1-6.

**As per claim 9**, Brown and Guthrie teach the method of claim 8 discussed above. Brown also teaches "the tenant level statistics are stored to a tenant metadata table" at page 4, [0045].

**As per claim 10**, Brown and Guthrie teach the method of claim 1 discussed above. Guthrie also teaches: "wherein at least one column of one of said table include data associated with two or more tenants" at Col. 6 lines 35-50.

**Claims 11-25** recite a system and method comprising similar limitations as in claims 1-10. Claims 11-25 are therefore rejected by the same reasons.

### ***Response to Arguments***

5. The Declaration filed on October 12, 2007 under 37 CFR 1.131 is sufficient to overcome the Galindo-Legaria reference.

6. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully

consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the Claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is **(571) 272-3574** for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



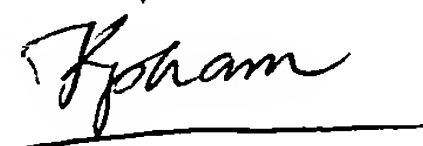
Application/Control Number:  
10/669,523  
Art Unit: 2166

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khanh B. Pham  
Primary Examiner  
Art Unit 2166

January 7, 2008

A handwritten signature in cursive script, appearing to read 'Kpham', is written over a horizontal line.